

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re application of :
Tomoyuki Nono : Attn: BOX PCT
Serial No. New : Docket No. 2001_1891A
Filed January 4, 2002 :

DIGITAL BROADCAST RECORDING/
VIEWING SUPPORT APPARATUS
[Corresponding to PCT/JP01/03765
Filed May 1, 2001]

THE COMMISSIONER IS AUTHORIZED
TO CHARGE ANY DEFICIENCY IN THE
FEES FOR THIS PAPER TO DEPOSIT
ACCOUNT NO. 23-0975

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents,
Washington, DC 20231

Sir:

Please amend the above-identified application as follows.

In the Specification:

Please replace the paragraph beginning at page 34, line 14 with the following substitute paragraph:

Described next is a digital broadcast recording/viewing support apparatus according to the third embodiment of the present invention. A functional block diagram and a block diagram showing the hardware structure of this recording/viewing support apparatus are similar to those in the first embodiment (refer to FIG. 1 and FIG. 2). However, in the present embodiment, a program partially different from that in the second embodiment is stored in the memory 208. By executing the program at the CPU 204, a function different from that in the second embodiment is also realized.

In the Claims:

Please amend claims 7-12 as follows:

ATTACHMENT F

10019781-010402

7. (Amended) The recording/viewing support apparatus according to claim 1, wherein said weather forecast information obtaining means includes receiving means for receiving a data broadcast, and obtains said relevant weather forecast information from said data broadcast.

8. (Amended) The recording/viewing support apparatus according to claim 1, wherein said weather forecast information obtaining means includes interfacing means for accessing to the Internet, and obtains, through the interfacing means, said relevant weather forecast information via the Internet.

9. (Amended) The recording/viewing support apparatus according to claim 1, wherein when a probability of precipitation included in said relevant weather forecast information is larger than a predetermined value, said determining means determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

10. (Amended) The recording/viewing support apparatus according to claim 1, wherein when a laundry index included in said relevant weather forecast information is smaller than a predetermined value, said determining means determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

11. (Amended) The recording/viewing support apparatus according to claim 1, further comprising:
storing means for storing correlation data that relates a probability of precipitation to a receive level degradation probability defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein said determining means calculates, based on said correlation data, the receive level degradation probability corresponding to the probability of precipitation included in said relevant weather forecast

information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

12. (Amended) The recording/viewing support apparatus according to claim 1, further comprising:

storing means for storing correlation data that relates a laundry index to a receive level degradation probability defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein said determining means calculates, based on said correlation data, the receive level degradation probability corresponding to the laundry index included in said relevant weather forecast information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

Please add new claims 15-20 as follows:

15. (New) The recording/viewing support apparatus according to claim 2, wherein said weather forecast information obtaining means includes receiving means for receiving a data broadcast, and obtains said relevant weather forecast information from said data broadcast.

16. (New) The recording/viewing support apparatus according to claim 2, wherein said weather forecast information obtaining means includes interfacing means for accessing to the Internet, and obtains, through the interfacing means, said relevant weather forecast information via the Internet.

17. (New) The recording/viewing support apparatus according to claim 2, wherein when a probability of precipitation included in said relevant weather forecast information is larger than a predetermined value, said determining means determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

18. (New) The recording/viewing support apparatus according to claim 2, wherein when a laundry index included in said relevant weather forecast information is smaller than a predetermined value, said determining means determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

19. (New) The recording/viewing support apparatus according to claim 2, further comprising:
storing means for storing correlation data that relates a probability of precipitation to a receive level degradation probability defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein said determining means calculates, based on said correlation data, the receive level degradation probability corresponding to the probability of precipitation included in said relevant weather forecast information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

20. (New) The recording/viewing support apparatus according to claim 2, further comprising:

storing means for storing correlation data that relates a laundry index to a receive level degradation probability defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein said determining means calculates, based on said correlation data, the receive level degradation probability corresponding to the laundry index included in said relevant weather forecast information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

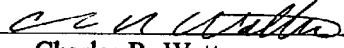
REMARKS

The above claim amendments are presented in order to remove multiple claim dependencies, so as to reduce the required filing fee, and to make a minor correction on page 34 of the specification.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attachment is captioned "Version With Markings to Show Changes Made."

Respectfully submitted,

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user. As such, according to the present embodiment, if there is the possibility of degradation in image quality or sound quality due to bad weather during the broadcast time of the preset-desired program, the same program to be aired at different time is preset
5 for recording. Thus, the program scheduled to be aired as a digital broadcast can be reliably and easily recorded.

<Third embodiment>

Described next is a digital broadcast recording/viewing support apparatus according to the third embodiment of the present
10 invention. A functional block diagram and a block diagram showing the hardware structure of this recording/viewing support apparatus are similar to those in the first embodiment (refer to FIG. 1 and FIG. 2). However, in the present embodiment, a program partially different from that in the ~~third~~ ^{Second} embodiment is stored
15 in the memory 208. By executing the program at the CPU 204, a function different from that in the ~~third~~ ^{Second} embodiment is also realized.

FIG. 5 is a flowchart showing the operation of the CPU 204 in a case where preset recording is carried out by using the
20 recording/viewing support apparatus according to the present embodiment. With reference to this flowchart, described below is the operation of the STB 200 in the present embodiment. Note that, of the steps in this flowchart, the same step as that in the flowchart shown in FIG. 4 is provided with the same reference
25 numeral.

15 said notifying means gives the notice of the possibility
of degradation in image quality or sound quality of said same
program to be aired at different time during the broadcast time
period when the weather is determined as bad.

6. The recording/viewing support apparatus according to
claim 2, wherein

5 said searching means searches not only digital broadcast
programs but also analog broadcast programs for said same program
to be aired at different time.

7. The recording/viewing support apparatus according to
claim 1 ~~or 2~~, wherein

5 said weather forecast information obtaining means includes
receiving means for receiving a data broadcast, and obtains said
relevant weather forecast information from said data broadcast.

8. The recording/viewing support apparatus according to
claim 1 ~~or 2~~, wherein

5 said weather forecast information obtaining means includes
interfacing means for accessing to the Internet, and obtains,
through the interfacing means, said relevant weather forecast
information via the Internet.

9. The recording/viewing support apparatus according to
claim 1 ~~or 2~~, wherein

5 when a probability of precipitation included in said
relevant weather forecast information is larger than a
predetermined value, said determining means determines that said

relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

10. The recording/viewing support apparatus according to claim 1 ~~or 2~~, wherein

when a laundry index included in said relevant weather forecast information is smaller than a predetermined value, said
5 determining means determines that said relevant weather will be so bad as to degrade said desired program in image quality or sound quality.

11. The recording/viewing support apparatus according to claim 1 ~~or 2~~, further comprising:

storing means for storing correlation data that relates a probability of precipitation to a receive level degradation
5 probability defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein

said determining means calculates, based on said correlation data, the receive level degradation probability
10 corresponding to the probability of precipitation included in said relevant weather forecast information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program
15 in image quality or sound quality.

12. The recording/viewing support apparatus according to

claim 1 ~~or~~ 2, further comprising:

storing means for storing correlation data that relates a laundry index to a receive level degradation probability
5 defined as a probability at which a receive level of said digital broadcast becomes smaller than a predetermined level threshold value, wherein

said determining means calculates, based on said correlation data, the receive level degradation probability
10 corresponding to the laundry index included in said relevant weather forecast information and, when the calculated receive level degradation probability is larger than a predetermined probability threshold value, determines that said relevant weather will be so bad as to degrade said desired program in image
15 quality or sound quality.

13. A recording/viewing support apparatus for supporting recording or viewing a program selected by a user as a desired program from among programs scheduled to be aired as digital broadcasts, said apparatus comprising:

5 program specifying information obtaining means for obtaining program specifying information that specifies said desired program based on an operation by said user;

weather forecast information obtaining means for obtaining, based on said program specifying information, weather forecast
10 information for relevant weather at a location where said digital broadcast is received during a broadcast time period of said